

CLAIMS

What is claimed:

- 18ba1>* 1. A method of displaying a program progress time on a picture tube of a TV receiver which receives and processes program guide information containing a program schedule, comprising the steps of:
- storing the program guide information;
 - setting a command of the TV receiver which is commonly usable by a user as a display command to display time information about a currently viewed program on the picture tube; and
 - displaying the time information about the currently viewed program on the picture tube when the user issues the display command set in said step (b).
2. A method of displaying a program progress time as claimed in claim 1, further comprising the step of displaying the time information together with the currently viewed program on the picture tube.
3. A method of displaying a program progress time as claimed in claim 1, wherein the time information is a program terminating time of the currently viewed program.
- 18ba2>* 4. A method of displaying a program progress time as claimed in claim 3, wherein the time information further comprises a beginning time and a current time with respect to the currently viewed program.
5. A method of displaying a program progress time as claimed in claim 4, wherein the time information includes the program progress time determined by subtracting the beginning time from the current time.

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1 6. A method of displaying a program progress time as claimed in claim 5,

2 wherein the time information further comprises a remaining program time determined by
3 subtracting the current time from the program terminating time.

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1 7. A method of displaying a program progress time as claimed in claim 6, further

2 comprising the step of displaying next program information when the remaining program
3 time reaches to a preset time.

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1 8. A method of displaying a program progress time as claimed in claim 7,

2 wherein the time information further comprises a percentage of the program progress time as
3 compared with a total program broadcasting time calculated by subtracting the beginning time
4 from the program terminating time.

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1 9. A method of displaying a program progress time as claimed in claim 8,

2 wherein the time information further comprises a percentage of the remaining program time
3 as compared with the total program broadcasting time.

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1 10. A method of displaying a program progress time as claimed in claim 1,

2 wherein the commonly usable command of the TV receiver is a command for a channel
3 up/down.

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1 11. A method of displaying a program progress time as claimed in claim 1,

2 wherein the commonly usable command of the TV receiver is a command for a remote
3 controller event.

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1 12. A method of displaying a program progress time as claimed in claim 1, further

2 comprising the step of judging that the command for displaying the program progress time is
3 issued by the user so as to display the program progress time at a preset time set by the user
4 prior to a program terminating time of the currently viewed program.

1 13. A method of displaying a program progress time in a TV receiver which
2 receives and processes program guide information containing a program schedule, comprising
3 the steps of:
4 receiving and storing the program guide information;
5 determining a total program broadcasting time of a currently viewed program by
6 subtracting a program beginning time from a program terminating time of the currently
7 viewed program when a user issues a command requesting the displaying of the program
8 progress time of the currently viewed program;
9 determining the program progress time by subtracting the beginning time from a
10 current time;
11 displaying a display bar representing the total program broadcasting time; and
12 displaying the display bar so as to indicate a position on the display bar corresponding
13 -to the program progress time.

1 14. A method of displaying a program progress time as claimed in claim 13,
2 further comprising the step of displaying the display bar by distinguishing between a portion
3 of the program progress time elapsed and a remaining program progress time portion.

1 15. A method of displaying a program progress time as claimed in claim 14,
2 further comprising the step of displaying the program progress time on a portion of the
3 display bar between a starting position of the display bar and a position corresponding to the
4 program progress time on the display bar.

1 16. A method of displaying a program progress time as claimed in claim 14,
2 comprising the step of displaying the remaining program progress time on a portion of the
3 display bar between a position corresponding to the program progress time and an end
4 position of the display bar.

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1 17. A method of displaying a program progress time of a currently viewed
2 program of a television (TV) receiver, the method comprising the steps of:
3 receiving program guide information including a program schedule having the
4 currently viewed program; and
5 displaying the program progress time of the currently viewed program in response to
6 a command from a user to perform a function other than displaying the program progress
7 time upon receipt of the command.

1 18. The method as claimed in claim 17, wherein the command is one of an
2 activating a channel up/down key, determining an occurrence of a remote controller event,
3 and setting of a preset time prior to a program termination of the currently viewed program.

1 19. The method as claimed in claim 17, wherein said displaying step comprises the
2 step of simultaneously displaying the program progress time and the currently viewed
3 program.

1 20. The method as claimed in claim 17, further comprising the steps of:
2 generating a setup display for the user to designate ones of a plurality of commands to
3 function as the command to perform the function other than displaying the program progress
4 time upon receipt of the command; and
5 receiving inputs from the user designating the ones of the plurality of the commands
6 to function as the command to perform the function other than displaying the program
7 progress time upon receipt of the command.

1 *Sub A6* 21. The method as claimed in claim 17, further comprising the step of displaying
2 next program information of a next program on a same channel as the currently viewed
3 program at the preset time prior to the program termination of the currently viewed program.

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1 22. The method as claimed in claim 17, further comprising the steps of:
2 generating a setup display for the user to designate ones of a plurality of commands to
3 function as the command to perform the function other than displaying the program progress
4 time upon receipt of the command, wherein a one of the plurality of commands is to display
5 the program progress time at a preset time prior to a program termination of the currently
6 viewed program, and for the user to designate another command to display next program
7 information on a same channel as the currently viewed program at the preset time;
8 receiving inputs from the user designating whether the ones of the plurality of the
9 commands are to function as the command to perform the function other than displaying the
10 program progress time upon receipt of the command; and
11 displaying the next program information at the preset time if the first and the another
12 commands are set by the user positively.

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1 23. The method as claimed in claim 17, wherein the program progress time
2 includes a program beginning time, a current time, and a program termination time of the
3 currently viewed program.

1 24. The method as claimed in claim 23, wherein the program progress time further
2 includes a channel number, a name of a broadcast station and a title of the currently viewed
3 program.

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1 25. The method as claimed in claim 23, wherein said displaying step comprises the
2 step of displaying the beginning time at a start of a display bar, the program termination time
3 at end of the display bar, and the current time at a position of the display bar corresponding
4 to a percentage of time elapsed versus a total time of the currently viewed program.

1 26. The method as claimed in claim 25, wherein said displaying step further
2 comprises the step of displaying a first percentage number of the time elapsed and a second
3 percentage number of a time remaining versus the total time of the currently viewed
4 program.

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27. The method as claimed in claim 25, wherein the command is to display the
program progress time automatically at a preset time prior to a program termination of the
currently viewed program.

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28. A device for displaying a program progress time, comprising:
a receiving unit to receive a TV program and a TV program guide containing a
program schedule which includes information on the TV program;
a user interface to enable entry of a command from a user requesting display of the
program progress time;
an audio output unit to generate an audio signal of the TV program;
a processor to produce On-Screen-Graphic data for displaying the program progress
time in response to the command from the user and based upon the program schedule;
a video output unit to mix video data of the TV program and On-Screen-Graphic data
of the TV program, to output a resulting signal; and
a display to display the resulting signal.

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29. The device as claimed in claim 28, wherein the command is one of an
activating a channel up/down key, determining an occurrence of a remote controller event,
and setting of a preset time prior to a program termination of the currently viewed program.

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30. The device as claimed in claim 28, wherein said processor produces ON-
Screen Graphic data for displaying next program information of a next program on a same
channel as the TV program at a preset time prior to a program termination of the TV
program

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